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August 16, 2012

Mr. Steve Casey
Department of Environmental Quality
420 Fifth Street
Gwinn, MI 49841-3004

By Email Only

Dear Mr. Casey:

The following provides responses to your letter to me dated August 13, 2012 regarding the proposed CR 595 project. The items from your letter precede our response to each item.

- 1) The application package states a 66-foot ROW is planned. There are up to 35 locations with a road profile exceeding 10 feet in height from the natural ground surface (see wetland cross sections), truck climbing lanes, and at least 2 equalizer culverts of 96 and 120 feet long, along with others around 80 feet in length. Please clarify what is the standard right-of-way along the proposed route and whether wetland impact calculations account for construction activities outside of the standard 66-foot right-of-way.

Response: The standard ROW for CR 595 will be 66 feet. In those locations where the side slopes of the road will exceed 66 feet, MCRC will acquire the additional ROW so as to encompass the entire road width from toe of slope to toe of slope. Regardless of the width of the ROW, whether 66 feet or somewhat wider at any given location, all wetland fill has been taken into account for purposes of the permit application documentation.

- 2) Some of the wetland communities do not seem to be properly classified. Based on our site inspections, it appears that wetlands E4, E5, E9, and E13 are hardwood-conifer swamp while the application classifies these as "other" wetlands based on the plants. The data on which the wetland classification was based should be provided for sites where wooded swamp wetland would be impacted by the proposed road.

Response: Attached is a report describing the evaluation methodology that resulted in the classification of certain wetlands. The report includes photographs of Wetlands E4, E5, E9 and E13, along with a description of features identified at those locations. If this type of documentation is insufficient for your review purposes, or you have reason to believe our reporting is in error, we would be pleased to meet you at each of these locations and resolve any discrepancies on the classification of each wetland to be impacted.

- 3) The northern portion of wetland E17 appears to be a poor fen. Considering the appearance that a poor fen may be impacted by the proposed road, data for the wetland type and a slope stake line should be provided for this site.

Response: The report referred to in the response to 2) contains a photograph and description of wetland E17. If you would like to meet at this location to clarify the site conditions and limits of fill, we would be pleased to do so. In the meantime, as of Tuesday August 14, 2012 the proposed toe of fill has been staked in the field along both sides of the proposed CR 595 for a distance of approximately 200 feet, to aid in your review of impacts in that area.

- 4) In Section 18, Alternative Analysis/Project Assessment (AAPA), page 49 of 314 still states that the CR-510/Red Road-Sleepy Hollow is approximately twice the cost. This information should be clarified so that it is consistent with the cost table provided on page 288 of 314.

Response: The reference to the cost being approximately twice as much on page 49 was in error. While that estimated preliminary cost reference was believed to be accurate when the original document was written, recent development of the revised cost estimates using more accurate information resulted in the estimated costs shown on the table on page 288. Those estimated costs are accurate given the current information available to the project engineers. The reference on page 49 should have been changed to indicate a cost difference of approximately 37%.

- 5) Please provide an explanation as to why this has to be a county primary road. Can the road be designed at grade with turns, stops, and lower speed limits in order to eliminate the significant amount of fill and thus further minimize wetland impacts?

Response: MCRC conducted a public process to determine the purpose and need for the proposed CR 595. The result of the public process, which included public informational meetings, workshops, public hearings, special road commission meetings as well as county and township governmental unit meetings, concluded that a primary county road was needed to serve northwest Marquette County.

MCRC determined that the purpose of the proposed CR 595 is to provide improved access to a part of the county that is underserved by adequate road access. Due to the fact that an all-season, paved road is necessary to serve the transportation needs of industries in northwest Marquette County and that the road design must provide a safe route for the anticipated truck and other traffic, a primary county road is necessary to fulfill the transportation needs of Marquette County.

The specific reasons for a primary county road are summarized in Table 3-8 from the Revised Alternatives Analysis & Project Assessment dated July 24, 2012 and is excerpted below.

Table 3-8. Summary of Purpose and Need for CR 595.

Purpose for the Proposed CR 595	Need for the Proposed CR 595
Provide improved emergency services access to northwest Marquette County.	Present access for emergency services is inadequate and seasonal and has unacceptable response times due to the poor road conditions and distance of travel over circuitous routes from law enforcement, fire, and EMS stations.
Provide a primary county road access for a direct route to northwest Marquette County.	Presently the area is served by only one county road route (Triple A Road from CR 510) and Triple A Road is a seasonal, unimproved road. It is reasonable to assume that Triple A Road could be blocked during a severe weather event, forest fire, or other event that would block the road. CR 595 would provide a more reliable all-season road to serve as a primary access route.
Provide a primary county road to northwest Marquette County that is west of Silver Lake Basin.	Silver Lake Basin is the most upstream hydropower impoundment on the Dead River. In the event of a catastrophic event like 2003 that caused the failure of a bridge and dams, the route upstream of Silver Lake Basin would ensure a more secure access to the northwest part of Marquette County.
Provide a primary county road in a corridor that is needed for the desired spacing of all-season road transportation access in Marquette County.	Primary county roads are needed on a spacing of about eight miles to ensure reliable transportation network to all parts of the county.
Provide a shorter route and all-season paved road that is less costly than existing roads to maintain on an annual basis with limited public funds.	Using the existing CR 510-Triple A Road access to northwest Marquette County for heavy trucking without total reconstruction of these seasonal roads will cause constant maintenance problems to keep the roads in useable condition, including grading, dust control, snow removal, and erosion control. The length of the existing route and condition of the roads adds substantial maintenance cost compared to heavy truck and other traffic using CR 595 as the primary route.
Provide an all-season road that will serve to reduce heavy truck traffic in urbanized areas of Marquette County.	Heavy truck hauling through the City of Marquette, Marquette Township, Negaunee, and Ishpeming has been a matter of concern for many years. With the Eagle Development Project coming on line, the haulage issues are more important and the proposed CR 595 is a public necessity.
Provide improved access for the timber and mining industries in northwest Marquette County.	The timber industry is inadequately served by existing roads. Eagle Development Project requires all-season access to transport ore and people associated with the project.
Provide all-season access to northwest Marquette County.	Northwest Marquette County is inadequately served by Triple A Road which is seasonal and does not meet existing and future needs.
Provide an efficient travel route for commercial activities and the general public in northwest Marquette County.	Accidents increase proportionally with miles travelled. The proposed CR 595 is substantially shorter than the other routes and will provide a safer road for the travelling public.

CR 595 has been designed and redesigned over a period of several years with the intent of avoiding and/or minimizing wetland and stream impacts. It is the position of MCRC that the proposed design constitutes the project team's best effort at designing a safe roadway that meets the criteria of Parts 303 and 301. This is not to say that minor changes to the road design could not be made; MCRC would consider any specific proposed revisions from MDEQ or EPA to further reduce wetland impacts; however keeping in mind that certain aspects of the road design cannot compromise safety standards.

- 6) At least one of the truck climbing lanes impacts an S-3 Rich Conifer Swamp (Station 1300). We should have detailed information on how much wetland impact results from the proposed truck climbing lanes and the details on how they were located along the route and whether some could be eliminated and/or moved to avoid the wetland impacts.

Response: An explanation to the design methodology is found in the AAPA on Page 70 of 314 (excerpted below).

"Locations where passing lanes are appropriate are determined from MDOT Michigan Road Design Manual, Volume 3, Section 3.09.05(C). The passing lane selection criteria are:

- Long, continuous grade where the length of the passing lane is a minimum of one mile in length;
- Directional spacing of passing lanes of approximately five miles;
- Locate in areas to avoid environmental impacts to the extent feasible;
- Vertical grades are present to enhance passing opportunities between slow and fast traffic."

The preceding information is part of the basis of design of the road. Please note that designated "passing" areas are based on Passing Lane Criteria and not Climbing Lane Criteria. Detail Sheet D, as well as the Plan and Profile Drawings, refer to "climbing lanes" and shall be revised to say "passing lanes".

With respect to your request to detail the amount of wetland impacts from these proposed passing lanes, please consider the following:

STA 319+00 to STA 383+00 RT: 0.25 acres of S3 wetland

STA 1260+00 to STA 1299+00 LT: 0.07 acres of non-S3 wetland
0.09 acres of S3 wetland

STA 1360+00 to STA 1455+00 RT: 0.26 acres of non-S3 wetland
0.39 acres of S3 wetland

STA 1591+00 to STA 1647+00 LT: 0.21 acres of non-S3 wetland
0.11 acres of S3 wetland

Therefore, the total wetland impact associated with the passing lanes is approximately 1.38 acres, of which 0.84 acres are considered S3 wetlands.

As described on page 70 of the AAPA, in order to effect a reduction in wetland impacts as a result of the proposed passing lanes, significant safety considerations would be compromised. MCRC is willing to discuss some modifications to these passing lanes to further minimize wetland impacts; however it is unlikely that major modifications (and potential wetland impact reductions) will be possible.

- 7) Some of the proposed wetland excavation areas show a straight vertical excavation to significant depth. For example, in Section 10-Wetland Cross Sections on sheet 21, W-A58-1 is 11 feet deep with vertical sides, indicating no temporary impact outside of the roadway footprint. On sheet 22, W-A58-2 is 13 feet deep with vertical sides. Is this really feasible for wetland soils excavation, or will the sides end up being more like a 45 degree angle with a wider excavation footprint?

Response: The limits of excavation represented on the wetland cross section sheets (21 & 22 for example) are intended to depict the *permanent* wetland impact limits and match the width of impact shown on the Plan and Profile Drawings. Sheet E of the plan and profile drawings represents the typical section depicting the cut and replacement backfill required to construct a stable roadbed in peat areas and is based on Michigan Department of Transportation Standard Plan R-103-C, Treatment of Peat Marshes. In areas where peat depths exceed approximately five feet below existing grade, a temporary impact to wetlands would result when constructing the section according to Sheet E. These temporary impact areas will be surfaced with 12 inches of previously excavated peat material to allow wetland vegetation to re-establish itself.

Surface area of temporary wetland impacts where excavation is deeper than five feet (including wetlands A58-1 & A58-2) have been tabulated and presented as a total of 0.74 acres of temporary impacts as part of the revised permit application documents. In areas where the peat depth is less than five feet below existing grade, there is no anticipated additional wetland impact, temporary or otherwise, as the proposed backfill is expected to replace the excavated materials without the need for that backfill to extend beyond the excavation limits as shown.

- 8) Once the wetland mitigation plan is submitted it should include the wetland functional assessment of both the wetlands proposed to be impacted, and those to be preserved.

Response: The wetland mitigation plan includes a functional assessment of both impacted and preserved wetlands as can best be described using MiRAM and will be submitted in the near future.

- 9) The applicant should copy townships within the proposed mitigation preservation area, since there will be townships affected which were not included in the CR-595 project area. Rule 5 of the administrative rules for Part 303, Wetland Protection, of the Natural Resources and Environmental Protection Act, 1994 as PA 451, as amended, requires that townships where the

mitigation is planned outside of the townships where impacts to wetlands are proposed must have the opportunity to comment on the mitigation plans.

Response: MCRC will be providing a copy of the proposed wetland mitigation plan to Michigamme Township within the next few days. It will be transmitted with a cover letter that is copied to the MDEQ.

- 10) The baseline eco-assessment should be provided up front with the mitigation plan, so the applicant can show that the proposed preservation areas have reasonable potential to replace the functions and values of the wetlands that would be impacted by the project.

Response: As described in 8) above, MiRAM is being used as the tool in the assessment documents to compare the functions and values.

- 11) The application proposes to restore streams and wetlands at old road removals. We need a list of these sites, descriptions of the streams and adjacent non-disturbed wetlands, and plans for how the restoration will be accomplished and how the sites will be stabilized. The plans must include precautions taken to prevent inadvertent impacts on the adjacent wetlands (such as rutting or drainage, for example). There may be an area where the DEQ will want limited restoration so as to not disturb the existing wetlands.

Response: The list of the 26 locations where MCRC proposes to restore wetlands by removing road fill in areas where the existing road/trail will be abandoned after the construction of CR 595 is provided in Table 8-2 on page 232 of the AAPA dated July 24, 2012. Table 8-2 also provides the wetland type for the adjacent wetlands. Detail Sheet J in the set of July 26, 2012 Plan and Profile drawings depicts the restoration of wetlands by removal of abandoned road segments. The attached Detail Sheet J has been revised to more clearly depict this activity. Please also note that another wetland restoration area has been added to the list. This new proposed restoration area is in the segment of Wolf Lake Road that will be abandoned near the intersection of Wolf Lake Road and US-41. This additional wetland restoration area will bring the total to 27 restoration sites, involving 3.81 acres.

Seven of the 27 proposed wetland restoration areas have regulated streams associated with them. The following table provides the list of streams and a general description of the restoration.

Stream	Drawing Sheet #	Description
Unnamed Stream	1	Install proper soil erosion control measures, remove existing road bed; remove existing steel culvert; reconstruct stream channel; place wetland topsoil.
Second River	6	Second River is adjacent to the segment of Wolf Lake Road to be removed after CR 595 is constructed; no stream crossing structure presently exists in the wetland restoration area and no work will be performed in the stream; the stream banks will be left intact.
Trembath Lake Outlet	8	Install proper soil erosion control measures, remove existing road bed; remove existing twin 24-inch diameter steel culverts; reconstruct stream channel; place wetland topsoil.
Unnamed Tributary to Dishno Creek	18	Install proper soil erosion control measures, remove existing road bed; remove existing 8-inch diameter steel culvert; reconstruct stream channel; place wetland topsoil.
Voelkers Creek	21	Install proper soil erosion control measures, remove existing road bed; remove existing 48-inch diameter steel culvert; reconstruct stream channel; place wetland topsoil.
Unnamed Tributary to Mulligan Creek	31	Install proper soil erosion control measures, remove existing road bed; remove existing 6-inch diameter steel culvert; reconstruct stream channel; place wetland topsoil.
Unnamed Tributary to Mulligan Creek	32	Install proper soil erosion control measures, remove existing road bed; remove existing steel culvert (if present); reconstruct stream channel; place wetland topsoil.

Due to the linear nature of the wetland restoration sites and the placement of donor wetland topsoil from proposed wetland impact areas (i.e. muck/peat excavation), it is not proposed that the wetlands will be seeded, fertilized, or mulched. The wetland topsoil and the proximate existing wetlands are expected to provide adequate seed bank and seed to colonize the restoration areas. By not mulching, the introduction of invasive species into the wetland restoration sites will be minimized. The restored stream channels will be stabilized as specified in the final construction plans.

The final construction plans will provide details on the stream restoration measures to be implemented for each restoration site where streams are present.

- 12) The application fails to acknowledge the presence of the state-threatened Cerulean Warbler. The DEQ and the Department of Natural Resources (DNR) have documented its presence at

several locations along the proposed road route. The breeding bird survey was done in May 2008. Most warblers do not return to the Upper Peninsula until mid to late May. The applicant will be required to coordinate with the DNR as to potential impacts to this species.

Response: MCRC will work in concert with the MDNR and MDEQ as necessary to coordinate mitigation measures to ensure no take of the Cerulean Warbler and to minimize impacts to its habitat. We were only aware of one location where a Cerulean warbler was heard on the field review on June 11, 2012. We would appreciate knowing the coordinates of the locations where MDNR and MDEQ have documented occurrences.

- 13) Page 115 of 314 states that CR-595 will have no physical barriers to species movement. This appears to be an inaccurate statement. While many of the proposed stream crossings have been redesigned to better accommodate wildlife passage, the fact remains that there are 35 locations with a vertical road height of 10 to 28 feet and 1/2 slopes. This high road grade will likely be a barrier to many species.

Response: The context of the statement on page 115 of the AAPA needs to be explained further. In the landscape where CR 595 is proposed, wildlife species routinely encounter physical barriers to movements; rock outcrops and steep slopes adjacent to wetlands are common. Slopes are more of a challenge to small animals such as turtles, but we expect that most species of reptiles, amphibians, and mammals should have no problem with traversing a 1:2 slope (which is the fill slope in wetlands; other slopes are 1:3). If small animals encounter a road side slope they cannot traverse, they will locate a route that is manageable for them, just as they have to do in their daily movements within the natural landscape. All of the 26 stream crossings on the proposed CR 595 route have been designed in coordination with MDNR and MDEQ to better accommodate not only fish passage, but wildlife passage as well. In general, the road grade for CR 595 has been lowered in wetland fill areas in order to minimize wetland impacts to the extent practical.

- 14) Please explain why the Wolf Lake Road south alternative has been modified from earlier versions of this route and what the differences are in terms of wetland impacts.

Response: The route that is presently proposed on Wolf Lake Road south of the intersection with the previously proposed Wasie route to US-41 remains on the existing right-of-way of Wolf Lake Road going south until about Station 20+00 (Sheet 1 of the Plan and Profile Drawings). At that point, the proposed road would be located immediately west of the existing Wolf Lake Road in order to 1) construct a new bridge over the Middle Branch Escanaba River allowing Wolf Lake Road to remain open to traffic and, 2) straighten the existing horizontal alignment of CR 595 at the river crossing for safety purposes. The wetland impact for CR 595 in this location is 0.23 acres.

At Station 14+00 going south the proposed alignment of CR 595 leaves the existing Wolf Lake Road right-of-way in order to provide an improved alignment for the intersection with US-41 (Sheet 1 of Plan and Profile Drawings). The existing horizontal alignment of Wolf Lake Road as it approaches the intersection with US-41 is an undesirable alignment for traffic, especially trucks. The vertical alignment will also be improved with the proposed intersection at US-41 by providing a flatter grade for traffic waiting to turn on to US-41. As a result, the wetland impact

for this portion of the Wolf Lake Road route is 0.41 acres. If the existing Wolf Lake Road were to be reconstructed for CR 595, wetland impacts would likely be as much or greater than the 0.41 acres proposed due to the presence of wetlands adjacent to the existing road and the need to widen the road substantially. One positive aspect of an alignment that does not use that portion of the existing Wolf Lake Road is that 0.27 acres of wetland will be restored with the removal of a portion of the existing Wolf Lake Road near the US-41 intersection. This restoration area will be added to the revised plan and profile drawings to be submitted to MDEQ in the near future.


In summary, the relocation of these portions of the existing Wolf Lake Road are for the purpose of keeping the road open during construction and to substantially increase traffic safety in this area in the long-term.

- 15) During a recent site inspection a 6-foot wide stream was discovered approximately 0.45 miles north of the Dishno grade near station 1370 that was not identified on the plans. It appears that this stream would be filled by the proposed road. Please clarify whether this stream would be impacted by adding and add it to the plan sheets.

Response: We have identified the stream you are referencing. It is actually nearest Sta. 1278+00. However, this stream is outside of the slope stake line of CR 595 and therefore will not be impacted. In the interest of being clear and concise however, we will show it on revised drawings and stake the proposed toe of slope in the field at this location to confirm the fact that there will be no impact to that watercourse.

Thank you for coordinating these items for clarification. If you have further questions we will be pleased to provide responses.

Sincerely,



James M. Iwanicki, P.E.
Engineer Manager

cc: Ms. Melanie Haveman, EPA (by email only)

Enclosure